ABSTRACT

Disclosed is a reciprocating motor including a multi type outer core having a plurality of single cores constructed with consecutively-stacked lamination sheets centering around a plurality of ring-shaped winding coils so as form a cylindrical structure and an insulating member placed between a plurality of the single cores, an inner core inserted in the multi type outer core so as to leave a predetermined gap with an inside circumferential face of the multi type outer core, and a moving part having a plurality of magnet rows confronting the winding coils of the multi type outer core respectively so as to reciprocate in accordance with a variation of currents flowing through the winding coils. The present invention generates simple fluxes formed in the flux paths and prevents the fluxes from being cancelled each other, thereby enabling to increase an efficiency of a motor by decreasing the magnetic saturation as well as provide a simple design of the motor. Moreover, the present invention enables to reduce the amount of magnets required for the motor, thereby saving a manufacturing cost.